

importance than belongs to the mastitis. Perhaps in these cases we may fall back on congenital tumor rudiments in Cohnheim's sense.

(b) Eczema appears, according to English authors, to stand in direct connection with cancer of the mamma. Our cases suggest at the most a *locus minoris resistentie*

TRAUMATIC EFFECTS.—(a) A single intense trauma was found to be an etiological factor in $12\frac{1}{2}\%$. This was specially evident in men.

(b) Repeated injuries, each slight in itself, such as happen in house and farm work, and in many callings, now and then, perhaps, from poorly fitting garments, probably have an influence in disposed persons, and under certain conditions that we do not further understand. At any rate we are not justified in attributing cases, where no other etiological factor is present, simply to small mechanical insults as an independent factor.

SIDE OF THE BODY.—This has absolutely no importance. Males as well as females show an equal frequency on the two sides.

LOCALIZATION IN THE MAMMA.—The point of predilection for the beginning cancer is the upper outer quadrant; the region of the nipple and the areola appears to be a favorite seat of the same.

HEREDITY.—Ten per cent of the cases are said to be hereditarily handicapped. Still, on comparing herewith the mortality statistics of cancer, this can only be allowed in cases of repeated cancer in the family, while in other cases it is at least doubtful.

The individual disposition to disease and the general condition of the patient can not be estimated statistically. It appears that there is no uniform etiology for mammary cancer. For a large number, the majority, of patients we do not know whence the neoplasm comes.—*Bruns' Beiträge z. klin. Chirg.*, 1889, Bd. iv, heft 3.

II. By What Means Can the Occurrence of Pseudo-Membranous Adhesions From Intra-Peritoneal Wounds Be Prevented? By DR. R. STERN (Heidelberg). Although septic peritonitis is the most frequent cause of death after laparotomy, other unfavorable results occur to all operators, quite independent of any infection. Amongst these latter occurrences intestinal occlusion plays

an important role. Statistics from various operators show that this happens in about 1% of all cases ($\frac{1}{3}$ to $1\frac{1}{2}$ %.) This may be from:

1. Incarceration of intestine between the pedicle where sutured to the abdominal wall and some other viscus.
2. Inflection of intestine by an adhesion attached to it.
3. Twisting on its axis. He finds with Olshausen the second form the most common, since two-thirds of the 25 cases that he has collected (and tabulated) were due to adhesions. In 7 this was between pedicle and gut, in 3 between omentum and gut, and in 7 between abdominal wound and gut. The treatment of the pedicle was intraperitoneal in 16 of these 17 cases, and in 4 of the remaining 8.

The various suggestions and attempts that have been made with a view to the prevention of these adhesions are next discussed. He then describes 29 experiments on rabbits, in which various agents were used to coat over the stump and thus prevent attachments of the stump, at least, to other parts. His conclusions are:

1. Intraperitoneal wound-surfaces generally become attached to their surroundings.
2. Infusion of large quantities of sterilized normal salt solution does not prevent this.
3. Covering the stump with vaseline is likewise ineffective, because it does not adhere sufficiently.
4. Covering the stump with a mantle of tallow (firm at the body-temperature) prevents adhesions, but is technically difficult, can scarcely be split in desired thinness, and is questionable from its necessarily higher temperature.
5. Brushing the stump with collodion, sufficient to form a thin, smooth membrane, regularly prevents adhesions and shows no injurious side effects.

We of course recognize the difficulties that most frequently interfere with the practical application of this principle, and also that adhesions between the abdominal wound, excoriated peritoneum and adjacent parts must be prevented in other ways.

Dembrowski's experiments, showing freedom from adhesions where various substances had been injected into the peritoneal cavity of dogs,

and in other ways at variance with Stern's experience, are considered in an appended note.—*Bruns' Beiträge f. klin. Chirg.*, 1889, Bd. iv, heft iii.

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ORTHOPÆDIC.

I. Upon Painful Flat-Foot. By Dr. E. KIRMISSON. Various theories regarding the pathogenesis of flat-foot are discussed, and the conclusion arrived at that without doubt alteration of the bony structures occurs as the final result of the primary conditions, whether these latter are due, according to Duchenne, to insufficiency of the peroneus longus muscle, lesions of the cartilages (Gosselin), or weakness of the ligamentous apparatus (Lefort, Tillaux). It is the position of valgus which gives rise to the interference with locomotion in these cases, and not the flat foot. The different methods of correction by means of osteotomy are justified by the existence of the bony affection. Two cases are reported, the one being extirpation of the os navicularis, with a good functional result, and the other a cuneiform resection of a portion of the medio-tarsal joint, after the method of Ogston.

(The latest method of correcting the condition under discussion, and that which promises to supersede all others, that of Trendelenburg, either has not as yet come under the notice of the author, or its advantages have not been fully appreciated.)—*Rev. d'Orthop.*, 1890, No. 1.

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